



SUSTAINABLE FEATURES

- Energy cost/square foot = **\$1.22 /sf**
- New Construction
- 80,000 sf
- Energy use intensity = **128 kBtu/80,000 sf/yr**
- Percent CO2 reduction = **51%**
- Energy savings = **10,527,005 kBtu**
- CO2 savings = **557 Metric Tons CO2/yr**
- Pursuing LEED Silver certification

The Lower Colorado River Authority (LCRA) is a conservation and reclamation district charged with providing energy, water and community services to 58 counties in Central Texas. LCRA commissioned STG Design to design an office building for its Transmission Services Group to be located at their Dalchau Service Center Campus. Most of the building's architectural design features are informed by LCRA's desire to create an office environment that is flexible, sustainable, easy to maintain and energy efficient.

KEY DESIGN CHARACTERISTICS

- The predominant feature of the building's exterior envelope is an **insulated concrete tilt-up sandwich panel system with a natural sandblast finish**.
- Galvanized steel and **aluminum sunshade** devices enhance a high-performance glazing system.
- A reflective membrane roof system **reduces the urban heat-island effect** of this project.
- **Light colored concrete paving** in the parking area reduce the effect of urban heat island and minimize long-term maintenance.
- **A demonstration bioswale** will be constructed in the parking lot as a public education project of the LCRA.
- **A 40,000-gallon galvanized steel cistern will figure prominently** as one approaches the new building from the south west. **Rain water from the roof and condensate from the buildings air-conditioning systems will be stored to provide 100% of the landscape irrigation needs for the project site.**
- **Drought tolerant plant** selection and drip irrigation reduce water use for landscaping.
- Interior office spaces feature column-free spans with open ceilings that **enhance a flexible, open-office environment**.
- **High efficiency sinks, toilets and water coolers are projected to yield a 43% reduction in water** use compared to conventional fixtures.
- A high-efficiency mechanical system and building enclosure is projected to result in a **30% improvement in energy efficiency** relative to national standards.
- The site-cast, concrete, tilt-wall panels will have a **continuous, two-inch thick core with polystyrene insulation**.
- **At least 50% of the wood-based materials used in this project are specified to be certified by the Forest Stewardship Council to have been grown in a well-managed, sustainable forest.**

LOWER COLORADO RIVER AUTHORITY (LCRA)

Austin, Texas - Dalchau Service Center Office Building

